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AMENDMENTS TO THE CLAIMS:

Please cancel claims 2, 4, 32-33, 35-41 and 43-44 without prejudice or disclaimer.

1. (Currently amended) A group III nitride compound semiconductor device, comprising:
a substrate including an upper surface;
an undercoat layer formed on said upper surface of said substrate, said undercoat layer being doped with Mg to form convex portions in an upper surface of said undercoat layer, said convex portions comprising a shape of being shaped like a truncated hexagonal pyramid; and
group III nitride compound semiconductor layers formed on said undercoat layer,
wherein said undercoat layer comprises GaN which is doped with an n-type dopant and is of an n-type as a whole.
2. (Canceled)
3. (Currently amended) A group III nitride compound semiconductor device according to claim 1, wherein a magnesium concentration of said undercoat layer is not lower than $10^{20}/\text{cm}^3$.
4. (Canceled)
5. (Previously presented) A group III nitride compound semiconductor device according to claim 1, wherein said substrate comprises one of sapphire, SiC, and silicon single crystal.
6. (Previously presented) A group III nitride compound semiconductor device according to claim 1, further comprising;
a sedimentary layer interposed between said undercoat layer and said substrate.

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7. (Previously presented) A group III nitride compound semiconductor device according to claim 1, wherein said group III nitride compound semiconductor layers comprise one of a light-emitting device, a photodetector, and an electronic device as a whole.

8-33. (Canceled)

34. (Currently amended) A group III nitride compound semiconductor device according to claim 1, wherein said undercoat layer is formed on an ~~said~~ entirety of said upper surface of said substrate.

35. - 41. (Canceled)

42. (Previously presented) A group III nitride compound semiconductor device according to claim 6, wherein said sedimentary layer comprises AlN.

43. - 44. (Canceled)

45. (Previously presented) A group III nitride compound semiconductor device according to claim 1, wherein said group III nitride compound semiconductor layers are separated from said substrate by said undercoat layer.

46. (Previously presented) A group III nitride compound semiconductor device according to claim 45, wherein one of said group III nitride compound semiconductor layers comprises convex portions which are formed on said undercoat layer and between said convex portions of said undercoat layer.

47. (Previously presented) A group III nitride compound semiconductor device according to claim 1, wherein said undercoat layer and a group III nitride compound semiconductor layer

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which is most adjacent to said undercoat layer comprise different materials.

48. (New) A group III nitride compound semiconductor device according to claim 1, wherein said undercoat layer is formed directly on said upper surface of said substrate.

49. (New) A group III nitride compound semiconductor device according to claim 1, wherein said undercoat layer is formed at a temperature in a range from 1000 °C to 1200°C.

50. (New) A group III nitride compound semiconductor device according to claim 1, wherein said group III nitride compound semiconductor layers comprise an epitaxially-grown group III nitride compound semiconductor layer formed on said undercoat layer.

51. (New) A group III nitride compound semiconductor device according to claim 1, wherein said group III nitride compound semiconductor layers comprise a group III nitride compound semiconductor layer formed directly on said undercoat layer having a thickness in a range from 1 μ m to 2 μ m.

52. (New) A group III nitride compound semiconductor device according to claim 1, wherein said undercoat layer comprises a predetermined thickness for forming said convex portions to have said shape of said truncated hexagonal pyramid.

53. (New) A group III nitride compound semiconductor device according to claim 1, wherein said undercoat layer is formed by a metal organic chemical vapor deposition (MOCVD) process using trimethylgallium gas, ammonia gas and CP₂Mg gas, where CP represents RC₃H₄ in which R represents one of hydrogen and an alkyl group having 1 to 4 carbon atoms.

54. (New) A group III nitride compound semiconductor device according to claim 53, wherein in said MOCVD process, a flow rate of said trimethylgallium gas comprises

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47 μ mol/min, a flow rate of said ammonia gas comprises 10 SLM and a flow rate of said CP₂Mg gas comprises greater than 3 μ mol/min.

55. (New) A group III nitride compound semiconductor device according to claim 1, wherein said n-type dopant comprises silicon.